

SPECIFICATION AMENDMENT

Amend the Abstract to read as follows:

ABSTRACT OF THE DISCLOSURE

A2
~~This invention discloses several improved m~~Methods of correcting for atmospheric effects on a remote image of the Earth's surface taken from above, ~~wherein the image comprises a number of simultaneously acquired images of the same scene, each including a large number of pixels, each at a different wavelength band, and including infrared through ultraviolet wavelengths. One method is for retrieving t~~The aerosol/haze amount is retrieved (i.e., visible range) from an assumed ratio of in-band reflectances, ~~rather than from an assumed reflectance value. Another method is for identifying e~~Cloud-containing pixels are identified. This is used to improve the calculation of the spatially averaged radiance L^*_e and reflectance ρ_e images in standard equations. Another aspect ~~method greatly reduces the number of mathematical operations required to generate the reflectance values. This method operates by averaging the water vapor and ρ_e values over small groups of neighboring pixels, so that the same A, B, S, L^*_a parameter values may also be assigned to all pixels within the group. Yet another aspect~~new method accounts for shifts in the wavelength calibration within the image, such as would be caused by spectral "smile". This method loops the calculation of A, B, S and L^*_a over a set of possible wavelength shifts with respect to the input channel centers, and assigns the appropriate set of parameters to each pixel based on a pixel-location-dependent formula for the wavelength shift.

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